

The logo for FOSS4G 2006, featuring a stylized red and white graphic that resembles a ribbon or a stylized letter 'G'.

Contribution ID : 61

## Using Free and Open Source software to deploy a Spatial Data Infrastructure

Thursday 14 Sep 2006 at 14:00 (00h30')

In 2000 forest ministers of Canada's federal, provincial and territorial governments initiated the development of Canada's National Forest Information System (NFIS Canada) to respond to national and international reporting commitments on sustainable forest management.

The development and application of open source geospatial software has allowed NFIS Canada to deploy a Canada wide Web-based Open Geospatial Consortium (OGC) compliant Spatial Data Infrastructure (SDI). A suite of software, documentation, and training material has been packaged together (SDI-in-a-Box) to allow for the easy deployment of a SDI node. The 'SDI-in-a-Box' solution encapsulates all necessary software to publish and analyze geospatial and non-geospatial data over a secured infrastructure.

The SDI-in-a-Box meets the all the requirements set out by NFIS Canada. NFIS Canada has adopted several key business models. These include: NFIS Canada (1) is based on international standards, (2) is vendor neutral, (3) is minimize licensing costs, (4) is minimize impact on partner business practices and (5) is supporting common services delivered over a common interoperable distributed infrastructure.

SDI-in-a-Box (or NFIS-in-a-Box) is based on a Linux distribution commonly used in the informatics sector. Within the software footprint are Web services key to the SDI: Web Server (Apache), Java Web Container (Tomcat), OGC Web Mapping Server (WMS), OGC Web Feature Server (WFS), OGC Web Coverage Server (WCS), GeoLinking Data Access Service (GDAS), Distributed Access Control (DACS) and many other services. Linux Virtual Server (LVS) and other High Availability (HA) software are also used to insure the Web resources (SDI-in-a-Box footprint) are made tolerant and highly available over the NFIS Canada SDI.

SDI-in-a-Box (or NFIS-in-a-Box) has been deployed in 14 jurisdictions and government offices.

**Primary authors** : Mr. LOW, Brian (Natural Resources Canada - Canadian Forest Service - National Forest Information System)

**Co-authors** : Dr. QUENET, Robin (Natural Resources Canada - Canadian Forest Service)

**Presenter** : Mr. LOW, Brian (Natural Resources Canada - Canadian Forest Service - National Forest Information System)

**Session classification** : Sesion 1 : SDI-USE

**Track classification** : --not yet classified--

**Type** : Technical Conference